



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,596	09/28/2004	David R. Hall	66.0077	5595
38046	7590	02/02/2007	EXAMINER	
JEFFREY E. DALY INTELLISERV, INC 400 N. SAM HOUSTON PARKWAY EAST SUITE 900 HOUSTON, TX 77060			COY, NICOLE A	
			ART UNIT	PAPER NUMBER
			3672	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/02/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/711,596	HALL ET AL.
	Examiner Nicole Coy	Art Unit 3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 January 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8-15, and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Restarick et al. (USP 6,684,951).

With respect to claim 1, Restarick et al. discloses a filter for a drill string, comprising: a perforated receptacle (100a) having an open end (132) opposite a perforated end (the end shown at the right of figure 7b); a length of flange (130 and 131, wherein the thickness is the length) extending perpendicularly from an axis of the receptacle (wherein the thickness of 130 and 131 is perpendicular from an axis of the receptacle) and being attached to the receptacle adjacent the open end, the flange comprising first and second mounting surfaces (wherein 135a is on a first mounting surface and 135b is on a second mounting surface, see figure 7c); and an annular transmission element (135a, 135b in figure 7c; 134b and 134a in figure 7b) disposed in grooves (see figure 7c wherein the un-numbered white portion is the groove and the wire runs through the flange) formed in each of the first and second mounting surfaces (see figures 7b and 7c), wherein the respective transmission elements are in electrical communication with each other through an electrically conductive cable (see figure 7b

Art Unit: 3672

wherein 134a and 134b are in communication with each other via 136b) disposed within a passageway (132) formed in the flange and with a transmission network integrated into the drill string.

With respect to claim 2, Restarick et al. discloses that each mounting surface comprises a groove which houses the transmission element (see figure 7c).

With respect to claim 3, Restarick et al. discloses that at least one of the mounting surfaces comprise a passageway intersecting the groove and in fluid communication with the open end of the filter (see figure 7c).

With respect to claim 4, Restarick et al. discloses that least one of the grooves comprise a biasing element adapted to bias the transmission element towards an adjacent transmission element (see figure 7d).

With respect to claim 5, Restarick et al. discloses that the transmission elements are selected from the group consisting of inductive couplers, direct electrical contacts, and optical couplers (see figure 7c, 135a and 135b are direct electrical contacts).

With respect to claim 6, Restarick et al. discloses that the transmission elements are connected by the electrically conductive cable forming a LC circuit (see figure 7b wherein 136b is a third conductor).

With respect to claim 8, Restarick et al. discloses that the perforated receptacle (100) is corrosion-resistant (wherein 100 is inherently corrosion-resistant because it is used in a borehole).

With respect to claim 9, Restarick et al. discloses that the filter further comprises an electronic component (102).

With respect to claim 10, Restarick et al. discloses that the electronic component is selected from the group consisting of a sensor, a router, a power source, a clock source, a repeater, an electronic processor, an integrated circuit, a network node, and an amplifier (wherein 102 is a sensor).

With respect to claim 11, Restarick et al. discloses that the filter further comprises a mandrel (120) mounted coaxially within a central bore of the drill pipe (see figure 7a) and adapted for removing the filter (wherein the mandrel is capable of removing the screen).

With respect to claim 12, Restarick et al. discloses a filter for a drill string, comprising: a perforated, corrosive resistant receptacle (100a) having an open end (132) opposite a perforated end (the end shown at the right of figure 7b); first and second mounting surfaces are formed by a flange (130 and 131) which extends perpendicularly from an axis of the receptacle (wherein the thickness of 130 and 131 is perpendicular from an axis of the receptacle) and are attached adjacent the open end (wherein 135a is on a first mounting surface and 135b is on a second mounting surface, see figure 7c); and a transmission element (135a, 135b in figure 7c; 134b and 134a in figure 7b) disposed within a groove (see figure 7c wherein the un-numbered white portion is the groove and the wire runs through the flange) in each of the first and second mounting surfaces (see figures 7b and 7c), wherein the respective transmission elements are in communication with each through an electrically conductive cable disposed within a passageway (132) formed in the flange forming an LC circuit (see

figure 7b wherein 134a and 134b are in communication with each other via 136b and form an LC circuit) and with a transmission network integrated into the drill string.

With respect to claim 13, Restarick et al. discloses that the mounting surfaces comprise a passageway intersecting the groove and in fluid communication with the open end of the filter (see figure 7c).

With respect to claim 14, Restarick et al. discloses that the groove comprises a biasing element adapted to bias the transmission elements towards adjacent transmission elements (see figure 7d).

With respect to claim 15, Restarick et al. discloses that the transmission elements are selected from the group consisting of inductive couplers, direct electrical contacts, and optical couplers (see figure 7c, 135a and 135b are direct electrical contacts).

With respect to claim 17, Restarick et al. discloses that the filter further comprises an electronic component (102).

With respect to claim 18, Restarick et al. discloses that the electronic circuitry is selected from the group consisting of a sensor, a router, a power source, a clock source, a repeater, an electronic processor, an integrated circuit, a network node, and an amplifier (wherein 102 is a sensor).

With respect to claim 19, Restarick et al. discloses that the filter further comprises a mandrel (12) mounted coaxially within a central bore of the drill pipe (see figure 7a) and adapted for removing the filter (wherein the mandrel is capable of removing the screen).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Restarick et al.

With respect to claims 7 and 16, Restarick et al. is silent as to whether a capacitor modifies the electrical characteristics of the electrically conductive cable. However, it is well known in the art to use capacitors in order to modify the characteristics of an electrically conductive cable. Thus, it would have been obvious to modify Restarick et al. by including a capacitor in connection with the electric cable, in order to modify the electrical characteristics.

Response to Arguments

5. Applicant's arguments filed 1/25/07 have been fully considered but they are not ^{not} persuasive. Applicant argues that Restarick does ^A disclose a cable in a passageway formed in the flange. However, as noted above, the flange is 130 and 131 and thus there is a passageway 132 in which the electrical conductive cable passes (see figure 7b and 7c).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Coy whose telephone number is 571-272-5405. The examiner can normally be reached on M-F 7:30-5:00, 1st F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nac

